

# Claims

- [c1] A method for determining order and/or lot sizes that are consistent with an entity's primary strategic objective, comprising the steps of:
- a. selecting a primary strategic objective;
  - b. listing the possible strategic objective measures;
  - c. selecting the primary strategic objective measure and calculation;
  - d. running the MRP, MRP II and any other MIS for a planning period as if the currently required activities and/or work were in fact already ordered and/or run per the existing activity schedule and ordering rules;
  - e. determining the first expected results ran in step d as measured in terms of the said primary strategic objective measure calculation;
  - f. temporarily modifying the said existing activity schedule by removing one of the said currently required activities or work in the said existing activity schedule and re-running the said MRP, MRP II and any other MIS for the said planning period as if the remaining activities and/or work were in fact already run per the said existing activity schedule and the said existing ordering rules;
  - g. determining the second expected results of the said modified activity schedule created in step f as measured in

terms of the said primary strategic objective measure calculation;

h. taking the said first expected results found in step e and subtracting the said second expected results found in step g to determine the impact of the said activity and/or work that was removed in step f on the said strategic objective measure;

i. determining the appropriate new order and/or lot size that is consistent with the said primary strategic objective by taking the said impact found in step h and subtracting any fixed amount associated with the said activity or work that was removed in step f in the same units of measure as the said primary strategic objective measure and then dividing the result by the amount per unit or piece of the said removed job, the said amount is measured in the same unit of measure as the said primary strategic objective measure; and

j. re-running steps d through i above for each different job and/or order existing.

[c2] The method of claim 1 [c1] , wherein the said new order and/or lot size includes adding an additional quantity to the said new order and/or lot size.

[c3] The method of claim 1 [c1] , wherein the said new order and/or lot size includes an upper limiting value that is not to be

exceeded.

- [c4] The method of claim 1 [c1] , wherein the said new order and/or lot size is over-ridden and a substitute value put in for the said new order and/or lot size.
- [c5] The method of claim 2 [c2] , wherein the said new order and/or lot size includes an upper limiting value that is not to be exceeded.
- [c6] The method as in any one of claims 1 through 5 [c1][c2][c3][c4][c5] , wherein the said primary strategic objective is any strategic objective.
- [c7] An apparatus for determining an entity's order and/or lot sizes that the entity purchases and/or produces consistent with and supportive of the entity's primary strategic objective such that the operational side of the entity is supporting and consistent with the said strategic direction of the entity, wherein said apparatus includes:
- a. user interface devices and modules operatively coupled to said apparatus;
  - b. a memory that stores databases and computer readable code;
  - c. said databases including original databases and modified original databases;
  - d. a processor operatively coupled to said memory, said

processor configured to implement said computer readable code, said code configured to:

- i. receive, load and store the calculations for the primary strategic objective measure in the said memory or storage medium of the said apparatus;
- ii. modify the existing planned activities or work not yet completed to be temporarily assumed to be completed over a planning period and temporarily store the said activity that is assumed completed in the said modified original databases in the said memory or storage medium of the apparatus;
- iii. execute the MRP, MRP II and any other MIS program(s) for the said planning period using the said modified original databases per the existing schedule and ordering rules;
- iv. determining the first expected results of the programs ran in step iii as measured by the said primary strategic objective measure calculation and store the said first expected results in the said memory or storage medium of the said apparatus;
- v. temporarily remove one of the said activities or work in the said modified original databases in the said memory or storage medium of the said apparatus and re-running the said MRP, MRP II and any other MIS program(s) for the said planning period as if the

remaining said activities and/or work were in fact already run per the modified original databases list and the said existing ordering rules;

vi. determining the second expected results of the said programs ran in step v as measured in terms of the said primary strategic objective measure calculation and store the said first expected results in the said memory or storage medium of the said apparatus;

vii. taking the said first expected results found in step iv and subtracting the said second expected results found in step vi to determine the impact of the said activity and/or work that was removed in step v on the said strategic objective measure;

viii. determining the appropriate new order and/or lot size that is consistent with the said primary strategic objective by taking the said impact found in step vii and subtracting any fixed amount associated with the said job that was removed in step v in the same units of measure as the said primary strategic objective measure and then dividing the result by the amount per unit or piece, in the same units of measure as the said primary strategic objective measure, of the said job that was removed wherein the said amount is measured in the same unit of measure as the said primary strategic objective measure;

ix. re-storing the said removed activity or work into the said modified database with the new said order and/or lot size and storing the new order and/or lot size into the said original database in the said memory or storage medium of the said apparatus; and  
x. re-running steps v through ix above for each different activity and/or work currently planned in the planning period.

[c8] An apparatus as recited in claim 7 [c7] , wherein the said code is configured to add and additional quantity to the said new order and/or lot size.

[c9] An apparatus as recited in claim 7 [c7] , wherein the said code is configured so that the said new order and/or lot size has an upper limiting value that is not to be exceeded.

[c10] An apparatus as recited in claim 7 [c7] , wherein the said code is configured to over-ride the said new order and/or lot size with a substitute value.

[c11] An apparatus as recited in claim 8 [c8] , wherein the said code is configured so that the said new order and/or lot size has an upper limiting value that is not to be exceeded.

[c12] An apparatus as in any one of claims recited in claim 7 through 11 [c7][c8][c9][c10][c11] , wherein the said primary strategic objective is any strategic objective.

- [c13] A computer program embodied on a computer-readable medium for determining an order and/or lot size that the entity purchases and/or produces consistent with and supportive of the entity's primary strategic objective such that the operational side of the entity is supporting and consistent with the said strategic direction of the entity, wherein said determination comprises a data structure instantiating code segment that establishes a storage record in memory having:
- a. the calculations for the primary strategic objective measure;
  - b. a first expected results of the existing activities and/or work as measured by the said primary strategic objective measure calculation calculated over a planning period as if the said existing activities and/or work were already completed;
  - c. a second expected results of the existing activities and/or work, less one of the said existing activities, as measured by the said primary strategic objective measure calculation calculated over a planning period as if the said existing remaining activities and/or work were already completed;
  - d. the difference between the said first expected results and the said second expected results; and
  - e. the new order and/or lot size as determined by taking the said difference and subtracting any fixed amount associated with the said removed job and dividing the result by any

amount per piece or unit, wherein all said amounts are in the same units of measure as the said primary strategic objective measure.

[c14] A computer program embodied on a computer-readable medium as recited in claim 13 [c13] , wherein the said new order and/or lot size comprises a data structure instantiating code segment that establishes a storage record in memory having an additional quantity added to the said new order and/or lot size.

[c15] A computer program embodied on a computer-readable medium as recited in claim 13 [c13] , wherein the said new order and/or lot size comprises a data structure instantiating code segment that establishes a storage record in memory having an upper limiting value that the said new order and/or lot size is not to exceed.

[c16] A computer program embodied on a computer-readable medium as recited in claim 13 [c13] , wherein the said new order and/or lot size comprises a data structure instantiating code segment that establishes a storage record in memory wherein the said new order and/or lot size is over-ridden with a substitute value.

[c17] A computer program embodied on a computer-readable medium as recited in claim 14 [c14] , wherein the said new order and/or lot size comprises a data structure instantiating code segment that establishes a storage record in memory having an upper



limiting value that the said new order and/or lot size is not to exceed.

[c18] A computer program embodied on a computer-readable medium as in any one of claims 13 through 17 [c13][c14][c15][c16][c17] , wherein the said primary strategic objective is any strategic objective.

[c19] A device and system for determining an entity's order and/or lot sizes that the entity purchases and/or produces consistent with and supportive of the entity's strategic objective, said device and system comprising:

- a. a means for receiving, loading and storing the calculations for the primary strategic objective measure in the said memory or storage medium of the said device;
- b. a means for modifying the existing planned activities or work not yet completed to be temporarily assumed to be completed over a planning period and temporarily store the said activity that is assumed completed in the said modified original databases in the said memory or storage medium of the device;
- c. an means for executing the MRP, MRP II and any other MIS program(s) for the said planning period using the said modified original databases per the existing schedule and ordering rules;
- d. a means for determining the first expected results of the

programs ran in step c as measured by the said primary strategic objective measure calculation and store the said first expected results in the said memory or storage medium of the said device;

e. a means for temporarily remove one of the said activities or work in the said modified original databases in the said memory or storage medium of the said device and re-running the said MRP, MRP II and any other MIS program (s) for the said planning period as if the remaining said activities and/or work were in fact already run per the modified original databases list and the said existing ordering rules;

f. a means for determining the second expected results of the said programs ran in step e as measured in terms of the said primary strategic objective measure calculation and store the said first expected results in the said memory or storage medium of the said device;

g. a means for taking the said first expected results found in step id and subtracting the said second expected results found in step f to determine the impact of the said activity and/or work that was removed in step e on the said strategic objective measure;

h. a means for determining the appropriate new order and/or lot size that is consistent with the said primary strategic objective by taking the said impact found in step g

and subtracting any fixed amount associated with the said job that was removed in step e in the same units of measure as the said primary strategic objective measure and then dividing the result by the amount per unit or piece, in the same units of measure as the said primary strategic objective measure, of the said job that was removed wherein the said amount is measured in the same unit of measure as the said primary strategic objective measure;

i. a means for re-storing the said removed activity or work into the said modified database with the new said order and/or lot size and storing the new order and/or lot size into the said original database in the said memory or storage medium of the said device; and

j. a means for re-running steps e through i above for each different activity and/or work currently planned in the planning period.

[c20] The means of claim 19 [c19] , wherein said means includes additional means for adding an additional quantity to the said determined order and/or lot sizes.

[c21] The means of claim 19 [c19] , wherein said means includes additional means for establishing an upper limit on the said determined order and/or lot sizes that is not to be exceeded.

[c22] The means of claim 19 [c19] , wherein said means includes additional means for over-riding the said determined order and/or

lot sizes with a substitute value.

[c23] The means of claim 20 [c20] , wherein said means includes additional means for establishing an upper limit on the said determined order and/or lot sizes that is not to be exceeded.

[c24] The means as in any one of claims 19 through 23 [c19][c20][c21] [c22][c23] , wherein the said primary strategic objective is any strategic objective.